

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1.-13. (cancelled)

14. (previously presented) A method of sterilizing a balloon of a balloon catheter, comprising

a) providing a balloon catheter having a balloon with a first rupture pressure;

and

b) applying an electron beam to the balloon catheter in an evacuated or inert gas-filled container, so that the electron-beamed balloon has a second rupture pressure equal to or less than the first rupture pressure, the second rupture pressure being not more than about 15% to about 25% less than the first rupture pressure.

15. (original) The method of claim 14 including purging the container with the balloon catheter therein by evacuating the container and filling the evacuated container with inert gas, and sealing the purged container with the balloon catheter therein, before the electron beam is applied.

16. (original) The method of claim 15 including purging the balloon catheter by evacuating the balloon catheter and filling with inert gas, before the container sealed.

17. (original) The method of claim 16 wherein the balloon catheter is purged before being placed in the container and before the container is purged.

18. (original) The method of claim 16 wherein the container is purged inside an evacuated or inert gas-filled chamber.

19. (original) The method of claim 16 wherein the purged container is sealed inside the evacuated or inert gas-filled chamber.

20. (original) The method of claim 15 including mounting a stent on an outer surface of the balloon before the electron beam is applied, and the electron beam is applied to the outer surface of the balloon so that the stent reduces penetration of the electron beam into sections of the balloon located directly underneath the stent.

21.-26.(cancelled)

27. (previously presented) A balloon catheter, comprising an elongated shaft and a balloon mounted on the shaft, sterilized by an electron beam applied to the balloon catheter in an evacuated or inert gas-filled container, so that the balloon has a first rupture pressure before the sterilization, and a second rupture pressure after the sterilization which is equal to or less than the first rupture pressure of the balloon and which is not

significantly less than the first rupture pressure of the balloon, the second rupture pressure being not more than about 15% to about 25% less than the first rupture pressure.

28. (original) The balloon catheter of claim 27 wherein the second rupture pressure of the balloon is at least about 15 to about 20 atm.

29. (original) The balloon catheter of claim 27 wherein the balloon has a first fatigue resistance before the sterilization and a second fatigue resistance after the sterilization which is not more than about 5% to about 10% less than the first fatigue resistance of the balloon.

30. (original) The balloon catheter of claim 27 wherein the balloon has a wall thickness of about 0.01 to about 0.03 mm.

31. (original) The balloon catheter of claim 27 wherein the balloon is formed of a polyether block amide polymeric material.

32. (previously presented) A stent delivery balloon catheter, comprising an elongated shaft, and balloon mounted on the shaft and formed of a polyether block amide, and a stent mounted on the balloon for implanting in a patient's body lumen, the balloon being sterilized by an electron beam applied to the balloon catheter in an evacuated or inert gas-filled container with the stent mounted on the balloon so that sections of the

balloon located directly underneath the stent are penetrated less by the electron beam than are sections of the balloon located at spaces in a wall of the stent, the balloon having a first rupture pressure before the electron beam sterilization, and a second rupture pressure after the electron beam sterilization which is equal to or less than the first rupture pressure of the balloon and which is not more than about 5% to about 25% less than the first rupture pressure of the balloon.

33.-34.(cancelled)

35. (previously presented) The stent delivery balloon catheter of claim 32 wherein the stent is a metallic stent.

36. (previously presented) The balloon catheter of claim 27 wherein the balloon is formed of a polymeric material selected from the group consisting of a fluoropolymer, polytetrafluoroethylene, expanded polytetrafluoroethylene, and polyether block amide, and the electron beam is applied to the balloon catheter in an evacuated and/or an inert gas-filled condition.

37. (previously presented) The balloon catheter of claim 27 wherein the balloon is formed of a polymeric material selected from the group consisting of polyamides and fluoropolymers, and including a stent mounted on the balloon for implanting in a patient's body lumen.

38. (previously presented) A balloon catheter, comprising an elongated shaft and a balloon mounted on the shaft, sterilized by an electron beam applied to the balloon catheter in an evacuated or inert gas-filled environment, so that the balloon has a first rupture pressure before the sterilization, and a second rupture pressure after the sterilization which is equal to or less than the first rupture pressure of the balloon and which is not significantly less than the first rupture pressure of the balloon, the second rupture pressure being not more than about 15% to about 25% less than the first rupture pressure